

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
FACILITY INSPECTION REPORT - FY 2016**

F017988  
INSP005906  
AFS# 56-021-00006  
Synthetic Minor

Facility Information				
Company	United States Air Force			
Facility	F.E. Warren Air Force Base			
IMPACT Facility ID	F017988			
INSPECTION ID #	INSP005906			
Mailing Address	90 <sup>th</sup> CES-CEV 300 Vesle Drive, Suite 600	City: Cheyenne	State: WY	Zip: 82005
Facility Location	Lat/Long 41.14814/-104.85700			
Process Type	Air Force Base			
Facility Class	Synthetic Minor			
Permits:	See Air Quality Permits Section, herein			
Responsible Official				
Inspection Information				
Inspection Date	January 26, 2016		Previous Inspection Date: 7/9/2015	
Company Representatives(s)	Mr. Nolan Brasington, P.E. – Compliance, Environmental and NSR Permitting contact			
	Name	Title/Position	Initial	Date
WAQD Inspector	Brian J. Olson	Air Quality Engineer		
WAQD Staff Review	Brian R. Bohlmann, P.E.	District Engineer	BRE	2/3/16
	Fred DiLella	Compliance Program Manager	FTD	2-4-2016
	Nancy E. Vehr	AQD Administrator		
Compliance Status	On the day of the inspection it appeared that the United States Air Force Base, F.E. Warren, was operating in compliance with all applicable Department of Environmental Quality issued permits and waivers.			



**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
FACILITY INSPECTION REPORT - FY 2016**

Facility Information				
<b>Company</b>	United States Air Force			
<b>Facility</b>	F.E. Warren Air Force Base			
<b>IMPACT Facility ID</b>	F017988			
<b>INSPECTION ID #</b>	INSP005906			
<b>Mailing Address</b>	90 <sup>th</sup> CES-CEV 300 Vesle Drive, Suite 600	<b>City:</b> Cheyenne	<b>State:</b> WY	<b>Zip:</b> 82005
<b>Facility Location</b>	Lat/Long 41.14814/-104.85700			
<b>Process Type</b>	Air Force Base			
<b>Facility Class</b>	Synthetic Minor			
<b>Permits:</b>	See Air Quality Permits Section, herein			
<b>Responsible Official</b>				
Inspection Information				
<b>Inspection Date</b>	January 26, 2016		<b>Previous Inspection Date:</b> 7/9/2015	
<b>Company Representatives(s)</b>	Mr. Nolan Brasington, P.E. – Compliance, Environmental and NSR Permitting contact			
	Name	Title/Position	Initial	Date
<b>WAQD Inspector</b>	Brian J. Olson	Air Quality Engineer		
<b>WAQD Staff Review</b>	Brian T. Bohlmann, P.E.	District Engineer		
	Fred R. DiLella	Compliance Program Manager		
	Nancy E. Vehr	AQD Administrator		
<b>Compliance Status</b>	On the day of the inspection it appeared that the United States Air Force Base, F.E. Warren, was operating in compliance with all applicable Department of Environmental Quality issued permits and waivers.			

### **AIR QUALITY PERMITS:**

F.E. Warren AFB, owned by the United States Air Force, currently operates under multiple air quality permits, discussed herein. A checklist was created from the permits and used during the inspection for compliance determination, (See Appendix). The permit history for the F.E. Warren AFB is as follows:

**Permit Waiver - P0014666:** Waiver P0014666 was issued to the FE Warren Air Force Base on May 13, 2015. The permit authorized the operation of a paint booth in Building 317.

**MD-1287A:** Permit MD-1287A was issued the FE Warren Air Force Base on May 8, 2015. The modified permit replaced the three existing 56.6 MMBtu/hr Boilers with ninety-one (91) smaller boilers. Upon issuance, this permit shall supersede Air Quality Permit MD-1287 for the F.E. Warren Air Force Base.

**Wv-14204:** Waiver wv-14204 was issued to the FE Warren Air Force Base on February 27, 2013. The waiver allowed for painting operations in buildings 356, 781, 1235, and 1250 and one (1) engine test stand in Building 781.

**Wv-10661:** Waiver wv-10661 was issued to the FE Warren Air Force Base on June 15, 2010. The wavier allowed for the installation of one (1) 1,490 hp Cummins QST30-G5 NR2 emergency diesel generator.

### **PROCESS DESCRIPTION:**

F. E. Warren is an Air Force Base, which has several sources with the potential to emit to the atmosphere. The most significant of these sources are the Ninety-one (91) Boilers/Heaters that replaced three 56.6 MMBtu/hr natural gas boilers. Other sources of note include numerous emergency diesel fired generators, several paint booths, and a wood shop.

### **INSPECTION OBSERVATIONS:**

The Division arrived on site at approximately 08:35 hours. The weather conditions were both observed and obtained from weather.com. The ambient temperature was approximately 20°F with a SW wind at approximately 9 mph. The skies were clear with a relative humidity of 65%.

After recording the weather attributes the Division met with Mr. Nolan Brasington at building 321, office 117. The Division explained the intent of the inspection. After discussing this, the Division reviewed applicable records. It was during this time, Mr. Brasington brought building 1245 to the Division's attention. See the Air Quality Concerns/Recommendation Section, herein. After reviewing the records, Mr. Brasington escorted myself around the base to inspect various facilities.

The Division initially wanted to observe four or five boilers, but the first few buildings we attempted to access, were locked. Therefore, the Division decided to hold off on the boilers for the time being. The inspected concluded at approximately 10:45 hours.

### **PREVIOUS AIR QUALITY CONCERNS:**

On the day of the July 9<sup>th</sup>, 2015 inspection, it appeared that F.E. Warren Air Force Base was operating in compliance with all applicable Department of Environmental Quality issued permits and waivers.

### **AIR QUALITY CONCERS/RECOMMENDATION:**

- 1) On the day of the inspection, F.E. Warren Air Force Base, was complaint with all applicable permits and waivers. However, Mr. Nolan Brasington, did bring to the attention that building 1245 operated a paint booth and was thought to be permitted. The 2014 Emission Inventory does account building 1245's paint booth's emissions. The building is also referred to as the Allied Trade Building. The Division indicated he would look further into the discrepancy.

Upon further review of permit application USAF-3625\_ana, dated October 31, 2015, the Division did find the paint booth listed under PB1245 with PM<sub>10</sub>, VOC and HAP emissions all less than 0.1 tpy. During further review of the permit application for wv-14204, dated October 12, 2012, the Division was unable to find building 1245, (Allied Trade Building) mentioned. Upon issuance of wv-14204, building 1245 is not outlined within any of the permit conditions, specifically conditions 2, 4 and 5. In reviewing the 2008, 2011 and 2014 Emissions Inventories, the Allied Trade Building was only accounted for in the 2014 Emission Inventory.

The Division recommends that F.E. Warren AFB contact NSR as soon as possible to either amend their permit or possibly clarify the discrepancy.

## APPENDIX

- Permit MD- 1287A, wv-P0014666 and wv-14204 Check List
  - MD-1287A
- Waiver Check list
  - wv-P0014666
  - wv-14204
- Records
- Facility Photographs

**Applicable Permit Conditions during the FY 2016 Inspection.**

1. That authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.
  - Inspector possess a military ID.
2. That all substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. That a permit to operate, in accordance with Chapter 6, Section 2(a)(iii) of the WAQSR, is required after a 120 day start-up period in order to operate this facility.
4. That all notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager and District Engineer, Air Quality Division, 122 West 25<sup>th</sup> Street, Cheyenne, WY 82002. Submissions may also be done electronically through <https://airimpact.wyo.gov> to satisfy requirements of this permit.
5. That the combined total diesel fuel usage for the generators shall be limited to 50,000 gallons per year.

<b>Compliance:</b>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Comments:</b> <ul style="list-style-type: none"> <li>- Total diesel fuel usage for 2015?</li> <li>* Total fuel usage for the 2015 calendar year is 7,498.37 gallons.</li> <li>* Records can be viewed herein.</li> </ul>		

6. That the diesel generator engines inventory may be revised without prior approval from the Division with the following:
  - a. The new or replacement generator shall be rated at less than 650 kilowatts (872 horsepower) and is used for emergency purposes only.
  - b. Fuel consumption from the generator shall be included to demonstrate compliance with Condition 5 of this permit.
  - c. Notification of replacement shall be submitted to the Division in accordance with Condition 10.

<b>Compliance:</b>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Comments:</b> <ul style="list-style-type: none"> <li>- During the July 9, 2015 inspection, the inspector verified the Generators at bldgs 160, 328 and 356. No concerns were noted during the July 9, 2015 inspection.</li> <li>- Inspect Gen at bld 510</li> <li>- Engine Attributes according to the Engine Installation/Removal form.               <ol style="list-style-type: none"> <li>a. SN: 73798238</li> <li>b. Cummins, 6BT5.9-G2</li> <li>c. HP: 324</li> </ol> </li> <li>- Manufactures Maintenance requirements               <ol style="list-style-type: none"> <li>a. Maintenance Records from August 2015 to present for the Cummins, 6BT5.9-</li> </ol> </li> </ul>		

G2.

- \* The Division verified the above attributes. When asked about maintenance, Mr. Jerry Todd indicated the oil is changed yearly, and the engine is started once a month for operation assurance.

7. That the United States Air Force shall keep and maintain records of the amount of paint used each year. Records shall be kept for a period of at least 5 years and shall be made available to the Division upon request.
- a. This condition is also applicable to condition 3 in permit waiver – 14204, buildings, 356, 781, 1235 and 1250.
- b. This condition is also applicable to condition 5 of permit waiver – P0014666, building 317.

Compliance:	✓ Yes	No
<b>Comments:</b> <ul style="list-style-type: none"> <li>- Buildings 356, 781 were inspected during the July 9<sup>th</sup>, 2015 inspection</li> <li>- FY 2016 buildings to be inspected</li> <li>- 1235, 1250 and 317 (review of records starting August 2015 to present.)</li> <li>* Mr. Bransington and Mr. Olson first observed the paint booth and sand blasting unit at building 1235. During our time at building 1235 we were accompanied by Tom Watson. The previous sand blasting unit permitted under wv-14204 has been removed and replaced with a completely self-contained unit. The paint booth is controlled with a primary cyclone and secondary cyclone that vents to the atmosphere.</li> <li>* After inspecting building 1235 we met with Mr. Adam Galicia. The paint booth has not been used since December 21, 2015, as they are waiting to replace the filter. Mr. Bransington indicated that the roof of the paint booth is scheduled to be removed in the spring of 2016. During the replacement process the HVAC vent will also be replaced. Looking into the future the paint booth will eventually be taken out of service and relocated at the Helicopter Maintenance Facility.</li> <li>* At building 1245 we were accompanied by Mr. Roger Cheney. The paint booth is located in what appeared to be the vehicle maintenance facility. Mr. Cheney indicated that the filter is typically changed annually, however this is based on usage. Once the filter has been replaced, Bio is contacted and tests the air flow for adequate circulation within the booth.</li> <li>* Building 317 which houses the woodshop was the last building inspected. Mr. Mike Klemm, the Noncommissioned Officer in Charge, NCOIC, and Mr. Charles Johnson, Manager, accompanied us and explained the process to track materials used.</li> <li>* All records can be viewed herein.</li> </ul>		

8. That the opacity from the paint booths and wood shops shall be limited to 20 percent as determined by Method 9 of 40 CFR, Part 60, Appendix A.
- a. Condition applicable in both permit waivers – 14204 and P001466, conditions 5 and 6, respectively.

Compliance:	✓ Yes	No
<b>Comments:</b> <ul style="list-style-type: none"> <li>* Method 9 certifications can be viewed herein. Each exhaust stack is inspected twice per year to ensure the filters are working. Mr. Bransington indicated he is unaware of any instances where visible emissions were observed. However under any instances that visible emissions are observed, the unit is shut down and filters are changed.</li> </ul>		

9. That the United States Air Force shall comply with requirements of 40 CFR, Part 60, Subpart Kb (October 15, 2003 revision) for the diesel and gasoline storage tanks. This supersedes the requirement to comply with Subpart Kb under Chapter 5, Section 2 of the WAQSR.

<b>Compliance:</b>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Comments:</b>		
<ul style="list-style-type: none"> <li>* 40 CFR 60, Subpart Kb applies only to gasoline storage vessels equal to or greater than 19,813 gallons. The only bulk ASTs on base are 10,000 gallons and do not apply to this condition of the permit. Five total gallon tanks exist. 1-E-85 tank, 2 gasoline tanks, 2-diesel tanks.</li> </ul>		

10. That the United States Air Force shall submit an emission inventory by June 30 of each year with the following information:

<b>Compliance:</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Comments:</b>		
NA at the time of the Inspection. FY 2014 EI was discussed in previous July 9, 2015 inspection.		

11. That upon issuance this permit shall supersede Air Quality Permit MD-1287 for the F.E. Warren Air Force Base.

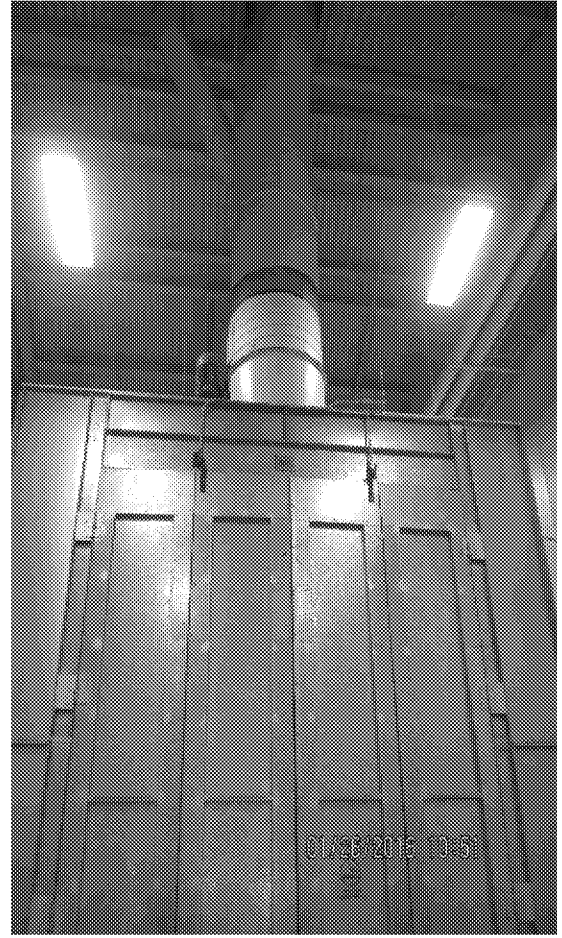
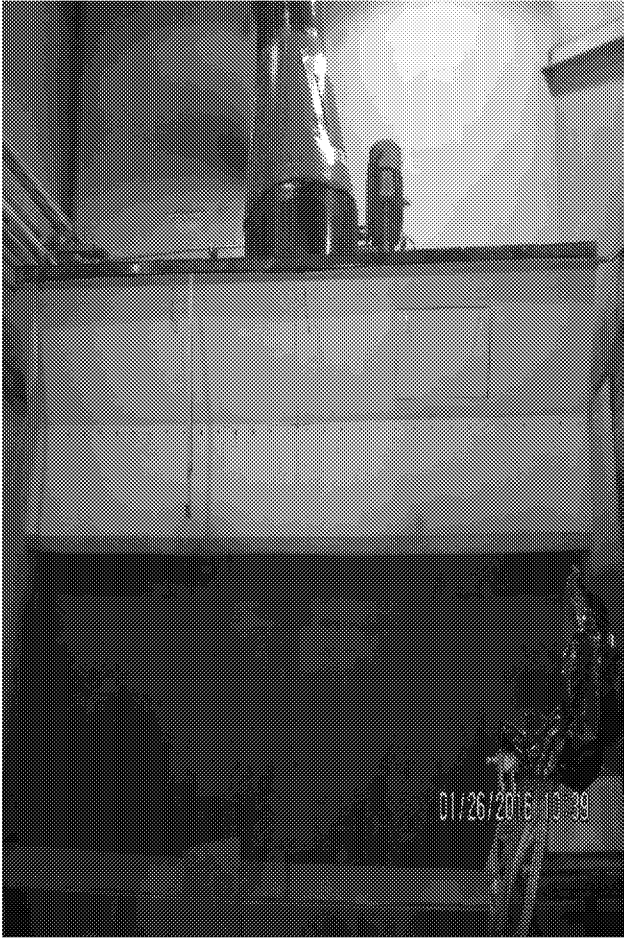


## RECORDS

## PHOTOGRAPHS



**Photographs 1 and 2: USAF, F.E. Warren, Building 1235;** Photograph 1) depicting the secondary cyclone and exhaust. Photograph 2) depicting the primary cyclone for the paint booth. Time stamp is off by an hour as it was not corrected for Day Light Savings.



**Photographs 3 and 4: USAF, F.E. Warren, Building 1250 and 1245;** Photograph 1) depicting building 1250's paint booth and exhaust stack. Photograph 2) depicting building 1245's paint booth and exhaust stack. Time stamp is off by an hour as it was not corrected for Day Light Savings.